



600 North Sherman Drive, Indianapolis IN 46201-2598 USA • Tel: (1 317) 267-6631 Fax: (1 317) 267-5993

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Scott J. Stevens  
Senior Patent Counsel  
Legal Operation

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Donna R. Searcy  
Secretary  
Room 222  
Federal Communications Commission  
1919 M. Street, N.W.  
Washington, D. C. 20554

Dear Ms. Searcy:

March 19, 1993

Enclosed for filing with the Commission is an original and nine (9) copies of the Comments of Thomson Consumer Electronics, Inc. relating to ET Docket No. 93-7.

Yours truly,

Scott J. Stevens

/dp

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FEDERAL COMMUNICATIONS COMMISSION  
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Before the  
Federal Communications Commission  
Washington, D.C. 20554

In the Matter of )  
 )  
Implementation of Section 17 )  
of the Cable Television )  
Consumer Protection and ) ET Docket No. 93-7  
Competition Act of 1992 )  
 )  
Compatibility Between Cable )  
Systems and Consumer )  
Electronics Equipment )

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COMMENTS OF THOMSON CONSUMER ELECTRONICS. INC.

Thomson Consumer Electronics, Inc. ("Thomson") hereby responds to the Notice of Inquiry ("NOI") in which the Commission has solicited information regarding means for promoting compatibility between consumer electronics products and cable TV systems, as required by the Cable Television Consumer Protection and Competition Act of 1992 ("Cable Act"). Thomson, as a leading manufacturer and marketer of consumer electronics products, including television receivers, is thankful for this opportunity to address the Commission as to matters that Thomson feels are of high importance to the future well-being of the American consumer and consumer electronics industry.

Introduction

Thomson wishes to express its support for the position taken by the Consumer Electronics Group of the Electronic Industries Association ("EIA/CEG") in its Comments filed in this Proceeding. Thomson is an active and interested participant in the activities of the EIA/CEG and fully supports the endeavors of the EIA/CEG to promote the consumer electronics industry. With respect to the present Proceeding, Thomson is in complete agreement with the EIA/CEG's position that the intention of the Cable Act is best served

by finding common ground and areas of mutual agreement between the

host of features and services just over the horizon. Unless the problem of compatibility is successfully addressed and solved, none of past, present, or future consumers will be fairly and adequately served.

2. Compatibility with the Installed Base of TVs and VCRs

In its NOI, the Commission identified several situations that users of consumer electronics equipment experience that highlighted the problems that are caused by incompatibility. They included consecutive recording from different channels, watching one channel while recording another, and using a picture-in-picture feature. These problems occur when a subscriber to cable services is forced to use a converter/decoder box to watch TV. Because the converter/decoder box is designed to output only one signal at a time and on only one channel (i.e. channel 3 or 4) at a time, the aforementioned problems occur.

Thomson believes that the only real solution for these problems is to require cable systems to deliver its signal to the consumer "in-the-clear". This would allow the consumer to utilize the features of a TV or VCR to their full extent and essentially end many incompatibility problems that the Commission addressed in its NOI. The cable industry has argued that signal in-the-clear is not a viable solution since conversion is necessary to avoid interference effects, and scrambling is needed to avoid signal piracy. Current technology, however, obviates these arguments. Modern TV designs have virtually eliminated the need for conversion. Interdiction technology is available today that will provide the consumer with a cable signal in the clear.

At least one very large cable company is currently adopting the interdiction technique, thereby illustrating that this is a cost effective, viable method for achieving the requirements of the cable industry while still insuring compatibility with TVs and VCRs. Of extreme importance, however, is the fact that by providing a signal in the clear, the cable industry can immediately provide retroactive compatibility with millions of installed TVs and VCRs.

In addition to the aforementioned interdiction technology, a promising new technology, referred to as broadband descrambling, will also become available to insure that the consumers' owning the installed base of products reap the full benefit of the features designed into those products, features that were paid for by the consumer. Thomson believes that either the currently available interdiction technology or the developing broadband descrambling technology offer solutions to the compatibility problems while maintaining the quality and integrity of the consumer's cable signal.

### 3. Lack of Standards Makes Design of Cable-Ready Product Difficult

Thomson believes that the major impediment to the development and manufacture of "cable-ready" or "cable compatible" products is the lack of standards that apply to the cable industry. In the United States, television receiver and VCR manufactures are required to design their equipment to

adhere to a carefully regulated standard, NTSC. The cable industry has exempted itself from any such standards. Consequently, individual cable systems can adopt unique channelizing and scrambling schemes that are incompatible with consumer's TVs and VCRs.

A variety of ideas and techniques have been suggested for dealing with the "cable-ready" issue, including advocating the use of a multiport adapter. Zenith Electronics corp. has suggested the adoption of an IF loop adapter. Thomson, however, believes that firm, consistent standards for signal transmission, channelization, signal levels, scrambling and signal usage must be established and adopted by the entire cable industry before the issue of a true cable-ready product can be resolved. It is Thomson's position that, if the cable signal transmission standard is allowed to change freely as it is today, the presence of a multiport or IF loop may not act to prevent the requirement for added decoder or converter boxes in the future. Thomson is reluctant to support an expensive solution that may at best be temporary. Without a firm commitment from the cable industry that standards will be adopted, Thomson cannot support a costly hardware solution in its products.

#### 4. The Future is Digital

Thomson believes that the future of digital signal transmission is sufficiently

near that any long term developmental efforts should be applied primarily to

needed to develop a significant installed base, will likely overlap with the growth of true digital transmission and signal processing, thereby obsoleting today's solutions even before they become popular. Further, the establishment of digital standards will obviously expedite the development of future compatible digital developments, such as multimedia and advanced security systems.

Thomson also believes that cost effective, viable technology is not available within this limited analog time frame to develop and establish an analog-only based national renewable security system for the cable industry. The rapid advance of digital techniques obviates the need for interim analog solutions. Thomson urges the Commission to require the establishment of digital standards that address the expressed needs of the cable industry while allowing the consumer electronics manufacturers to design and build their products with the assurance that all features and services will be available to every purchaser, regardless of the source of their video signals.

### Conclusion

Thomson believes that without clear standards for the cable industry, any compatibility solution will be temporary at best and may not adequately address the problem. Given the rapid advance of digital technology, concerted efforts should be made to insure compatibility in the digital domain. For these reasons, Thomson supports the concept of compatibility by providing a signal "in-the-clear",

which will provide much needed compatibility with the installed base as well as providing a cost effective viable solution for the remaining time of analog-based signals. As the technology is readily available, Thomson urges the Commission to focus its attention in this direction.

Respectfully submitted,

Thomson Consumer Electronics, Inc.

By Stephen A. Marshall  
Title V.P. BUSINESS PLANNING

March 19, 1993